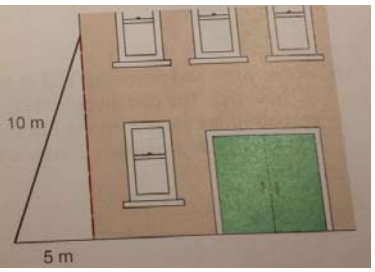
Alg Name_____

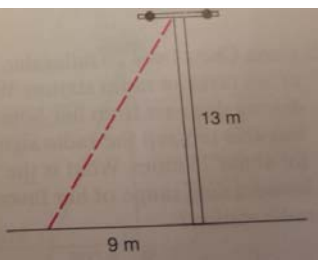
5-7 Pythagorean Theorem & Distance (ver2)_hw Date_____ Period____

Part 1:

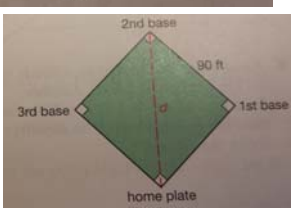
1. A 10-m ladder is leaning against a building. The bottom of the ladder is 5 m from the building. How high is the top of the ladder?



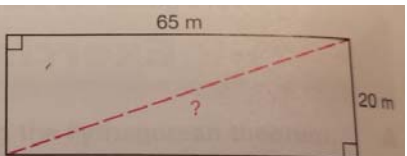
2. How long must a wire be to reach from the top of a 13-m telephone pole to a point on the ground 9 m from the foot of the pole?



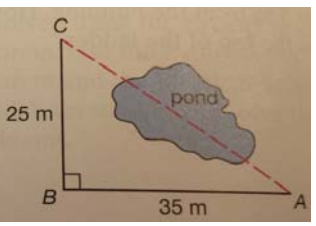
4. The distance between consecutive bases in professional baseball is 90 ft. Find the distance from home plate to second base.



5. What is the distance across the garden shown at the right?



6. A surveyor had poles marked at points A, B, and C. The distances that could be measured are shown on the drawing. What is the approximate distance from A to C?



Answer to Part 2:

1) 6.7
2) 8.5
3) 8.1
4) 14.3
5) 5
6) 8.6
7) 5.8
8) 7.1
9) 5.1

Answer to Part 1:

1. ≈ 8.7 m
2. ≈ 15.8 m
3. ≈ 76.5 ft
4. ≈ 127.3 ft
5. ≈ 68.0 m
6. ≈ 43.0 m

Part 2:

Use the Pythagorean Theorem to find the distance between each pair of points. Round answer to the nearest tenth, if necessary. (You will need graph paper to complete this assignment).

1) $(-5, -3)$, $(1, -6)$

2) $(-8, -3)$, $(0, 0)$

3) $(0, -2)$, $(-1, 6)$

4) $(5, -6)$, $(8, 8)$

5) $(6, -2)$, $(6, 3)$

6) $(-5, 8)$, $(0, 1)$

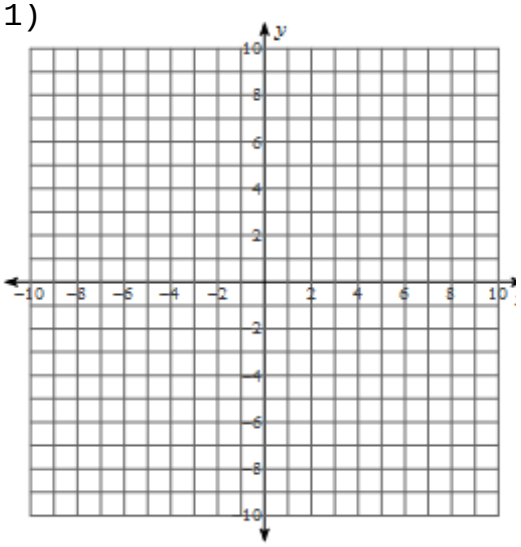
7) $(3, -1)$, $(0, 4)$

8) $(-5, -5)$, $(0, 0)$

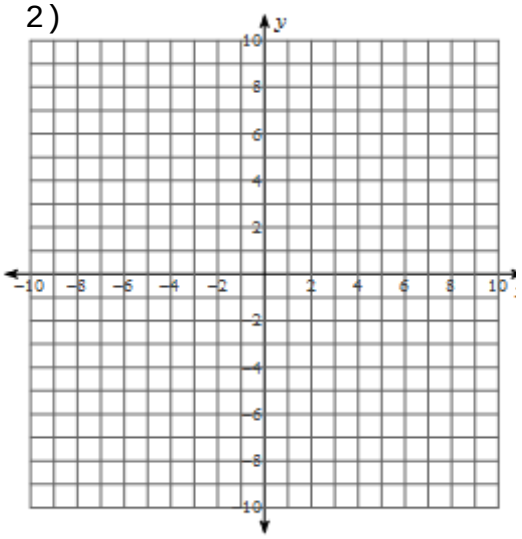
9) $(2, 3)$, $(-3, 2)$

GRAPH PAPER

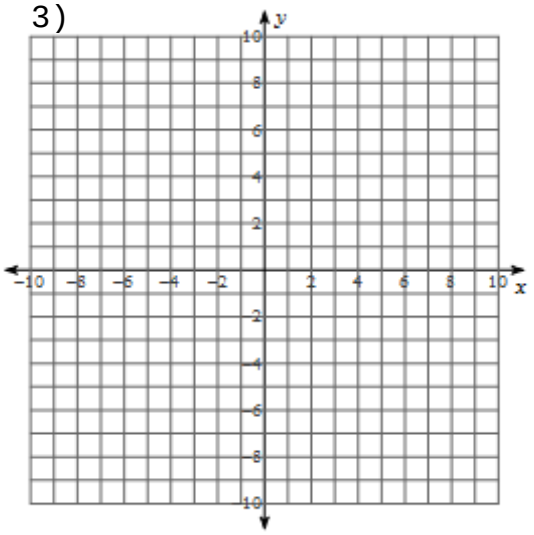
1)



2)



3)



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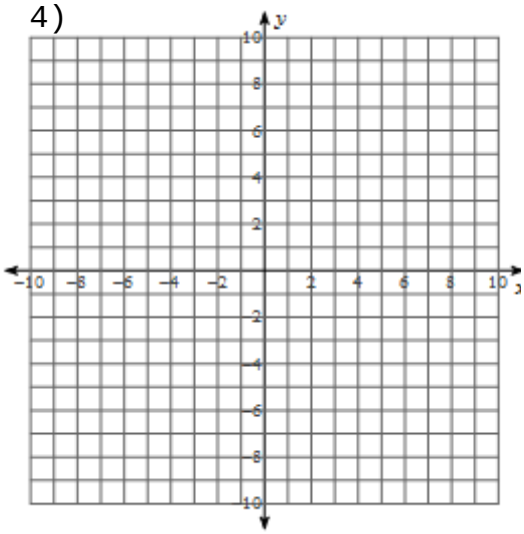
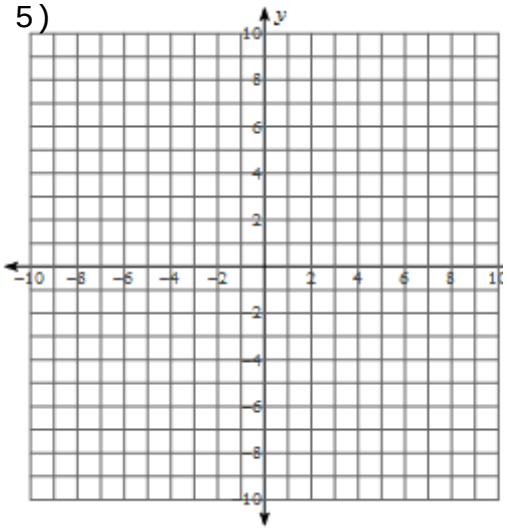
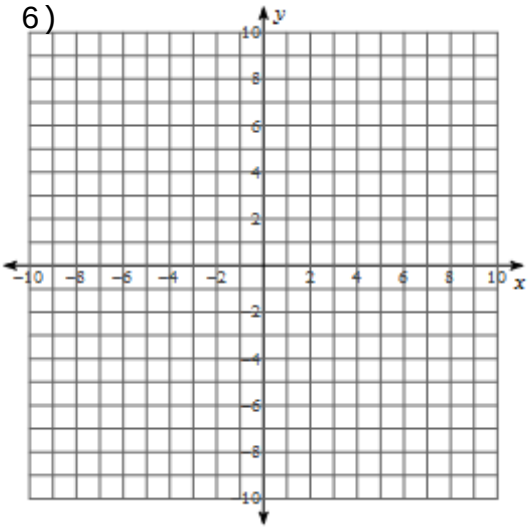


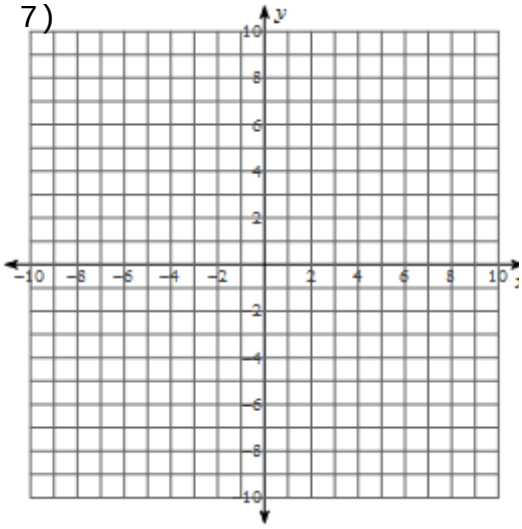
5)



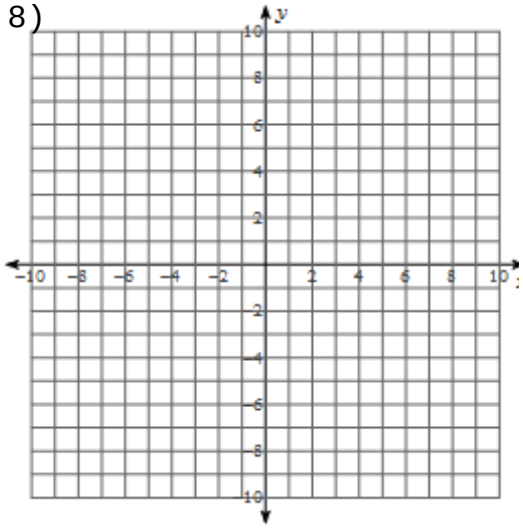
6)



7)



8)



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